

MATERIAL SAFETY DATA SHEET

DATE PRINTED: 3/21/2002

PAGE
MSDS NO. 288.4

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

MANUFACTURERS NAME
W.M. BARR & COMPANY, INC.ADDRESS
2105 Channel Avenue
Memphis, TN 38113 USAEMERGENCY TELEPHONE #1
901-775-0100EMERGENCY CONTACT
W.M. Barr Technical ServicesEMERGENCY INFORMATION
See Section 5 for additional Emergency InformationINVENTORY ITEM #
CHEMICAL FORMULA
288.4PRODUCT NAME
NON-METH BRASS REFURBISHERREVISED BY
W.M. Barr Technical ServicesREVISION DATE
5/10/1999

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CARCINOGENICITY

SUBSTANCE DESCRIPTION	PERCENT	CAS#	NTP	ACGIH	OSHA	IARC
METHYL ETHYL KETONE	55- 60	78-93-3	N	N	N	N
ISOPROPANOL	5- 10	67-63-0	N	N	N	N
AMMONIUM HYDROXIDE SOLUTION	1- 5	1336-21-6	N	N	N	N
** ABOVE INGREDIENT CONSISTS OF THE FOLLOWING **						
AMMONIA	25- 30	7664-41-7	N	N	N	N
ALUMINUM OXIDE	15- 20	1344-28-1	N	N	N	N

SECTION 3. REGULATORY INFORMATION

EXPOSURE LIMITS/REGULATORY INFORMATION

SUBSTANCE DESCRIPTION	REG.AGCY	U/M	TWA	STEL	CEIL	SKIN	PEL
METHYL ETHYL KETONE	ACGIH	PPM	200.00	300.00	N/E	N	N/E
	OSHA	PPM	200.00	300.00	N/E	N	200.00
ISOPROPANOL	ACGIH	PPM	400.00	500.00	N/E	N	N/E
	OSHA	PPM	400.00	500.00	N/E	N	400.00
AMMONIUM HYDROXIDE SOLUTION	ACGIH	PPM	N/E	N/E	N/E	N	N/E
	OSHA	PPM	N/E	N/E	N/E	N	N/E
AMMONIA	ACGIH	PPM	25.00	35.00	N/E	N	N/E
	OSHA	PPM	N/E	35.00	N/E	N	50.00
ALUMINUM OXIDE	ACGIH	MG/M3	10.00	N/E	N/E	N	N/E
	OSHA	MG/M3	5.00	N/E	N/E	N	5.00

EXPOSURE LIMITS FOR NUISANCE PARTICULATES: ACGIH TWA 10 MG/M3, TOTAL DUST.
OSHA TWA 5 MG/M3, RESPIRABLE FRACTION; OSHA TWA 15 MG/M3, TOTAL DUST.

ADDITIONAL REGULATORY INFO

The time weighted average (TWA) value described herein is a
threshold limit value (TLV) as established by ACGIH. The
permissible exposure limit (PEL) is a value established by OSHA.

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SECTION 3. REGULATORY INFORMATION
(CONTINUED)
-----**CALIFORNIA (PROPOSITION #65)**

Ingredients in this product are not listed on California's Prop 65 list: "Chemicals Known to the State to Cause Cancer or Reproductive Toxicity."

SEC. 313 SUPPLIER NOTIFICATION

The following information must be included in all MSDS that are copied and distributed for this material.

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR 372):

SUBSTANCE DESCRIPTION	PERCENT BY WEIGHT (UPPER LIMIT)	CAS#
METHYL ETHYL KETONE	60	78-93-3

CLEAN AIR ACT

This formula contains no known ozone depleting chemicals.

HAZARD COMMUNICATION STANDARD

This document is prepared in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200). This MSDS contains thirteen (13) sections.

The following effects and/or symptoms are not expected to be experienced by persons who use this product properly and according to ALL instructions, precautions, and warnings; however, should the product user experience ANY questionable effects or symptoms, the product user should immediately seek medical attention.

SECTION 4. HAZARDS IDENTIFICATION
-----**INHALATION ACUTE EXPOSURE EFFECTS**

Vapor harmful. May cause headache; nausea; coughing; irritation to the throat and respiratory tract; numbness in fingers, arms and legs; difficulty breathing; chest pains; bronchitis; bronchospasm; injuries to mucous membranes; chemical pneumonitis; pulmonary edema; tissue damage; and death.

SKIN CONTACT ACUTE EXPOSURE EFFECTS

This product is a skin irritant. Liquid is absorbed readily through the skin. May cause numbness in fingers and arms; irritation; blisters; burns; and tissue destruction. Vapors and mist may irritate moist skin.

EYE CONTACT ACUTE EXPOSURE EFFECTS

This material is an eye irritant. May cause irritation and pain; corneal ulcerations of the eye; and blindness. Vapors or mist can irritate eyes.

INGESTION ACUTE EXPOSURE EFFECTS

May be corrosive to mouth and throat. May cause nausea; vomiting; gastrointestinal irritation; burning of esophagus, stomach, mouth and throat; irritation to stomach; abdominal pain; reddening of the face; collapse; unconsciousness; and death.

CHRONIC EXPOSURE EFFECTS

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. May cause weakness, fatigue, difficulty breathing, and numbness in hands and feet.

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SECTION 4. HAZARDS IDENTIFICATION
(CONTINUED)
-----**MEDICAL CONDITIONS AGGRAVATED**

Diseases of the eye and pulmonary system.

PRIMARY ROUTE OF EXPOSURE

Inhalation, ingestion, and dermal.

SECTION 5. FIRST AID MEASURES
-----**INHALATION**

If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered.

SKIN CONTACT

Wash with soap and large quantities of water and seek medical attention if irritation from contact persists.

EYE CONTACT

Flush with large quantities of water for at least 15 minutes and seek immediate medical attention.

INGESTION

Call your poison control center, hospital emergency room, or physician immediately for instructions.

NOTE TO PHYSICIANThis formula is registered with POISINDEX.
Call your local poison control center for further information.-----
SECTION 6. FIRE FIGHTING MEASURES

HAZARD RATING SOURCE	HMIS	NFPA
HEALTH	2	1
FLAMMABILITY	3	3
REACTIVITY	0	0
OTHER	G	NA

FLASH METHOD

Seta

FLASH POINT

23.00 F -5.00 C

LOWER EXPLOSION LIMIT

N/E

GENERAL COMMENTS

OSHA FLAMMABILITY: Class IB

EXTINGUISHING METHOD

Use carbon dioxide, dry powder, or foam.

FIRE FIGHTING PROCEDURES

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

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SECTION 6. FIRE FIGHTING MEASURES
(CONTINUED)
-----**FIRE AND EXPLOSION HAZARDS**

DANGER! FLAMMABLE. KEEP AWAY FROM HEAT, SPARKS, FLAME, AND ALL OTHER SOURCES OF IGNITION. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and all other sources of ignition during use and until all vapors are gone. Beware of static electricity that may be generated by synthetic clothing and other sources.

SECTION 7. ACCIDENTAL RELEASE MEASURES
-----**CLEAN-UP**

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area. **SMALL SPILLS:** take up liquid with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable. **LARGE SPILLS:** dike far ahead of spill for later disposal.

For transportation related spills contact Chemtrec at 1-800-424-9300 for emergency assistance.

WASTE DISPOSAL

Dispose in accordance with applicable local, state and federal regulations.

SECTION 8. HANDLING AND STORAGE
-----**STORAGE**

Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures.

HANDLING

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

SECTION 9. TRANSPORT INFORMATION
-----**TRANSPORTATION**

For D.O.T. information, contact W.M. Barr Technical Services Department.

SECTION 10. EXPOSURE CONTROLS/PERSONAL PROTECTION
-----**VENTILATION PROTECTION**

Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea, or eye-watering - STOP - ventilation is inadequate. Leave area immediately.

RESPIRATORY PROTECTION

For OSHA controlled work place and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors. A dust mask does not provide protection against vapors.

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SECTION 10. EXPOSURE CONTROLS/PERSONAL PROTECTION
(CONTINUED)
-----**SKIN PROTECTION**

Wear impermeable gloves. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with product.

EYE PROTECTION

Safety glasses, chemical goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.

OTHER PROTECTION

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure. A source of clean water should be available in the work area for flushing eyes and skin. Do not eat, drink, or smoke in the work area. Wash hands thoroughly after use. Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use. Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.

SECTION 11. PHYSICAL AND CHEMICAL PROPERTIES

VOLATILE %
76.98
by weight

BOILING POINT
GT 175.00 F 79.44 C BOILING RANGE: 175 F - 550 F

VAPOR DENSITY (Air = 1.0)
Heavier than air

EVAPORATION RATE
Slower than ether

BULK DENSITY
7.836
lbs/gal at 75 F

pH FACTOR
N/E

PHOTOCHEMICALLY REACTIVE
NO

MAX V.O.C.
628 grams per liter (excluding exempt solvents and water).

MAX VAPOR PRESSURE
(of the V.O.C.) 46 mm Hg at 20 degrees C

SECTION 12. STABILITY AND REACTIVITY
-----**INCOMPATIBILITIES**

Incompatible with caustics, amines, alkanolamines, aldehydes, ammonia, chlorinated compounds, copper, aluminum, galvanized metal, zinc, gold, silver, alloys of these metals, acids, and strong oxidizing agents.

DECOMPOSITION

Decomposition may produce nitrous oxides, and ammonia vapors.

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SECTION 12. STABILITY AND REACTIVITY
(CONTINUED)
-----**POLYMERIZATION**
Will not occur.**STABILITY**
Stable.-----
SECTION 13. ADDITIONAL INFORMATION
-----**IMPORTANT NOTE**

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

LEGEND:

PPM = parts per million
MG/M3 = milligrams per cubic meter
N/E or NE = none established
GT = greater than
N/A or NA = not applicable
TCC = tag closed cup
TOC = tag open cup
PMCC = Pensky-Martens closed cup
IDLH = Immediately Dangerous to Life and Health

END OF MSDS